

What is claimed is:

1. A nanoscale standard sample comprising a sample base on which a chip having a diffraction grating pattern formed thereon is attached, wherein the chip is provided with an indicator permitting the direction of the diffraction grating pattern to be determined from the external appearance of the indicator.
2. A nanoscale standard sample comprising a sample base on which chips each having a diffraction grating pattern formed thereon are attached, wherein each chip is provided with an indicator permitting the direction of the diffraction grating pattern to be determined from the external appearance of the indicator, the chips being attached on the sample base such that their diffraction grating patterns are perpendicular to each other.
3. The nanoscale standard sample according to claim 1, wherein the indicator is provided on an upper surface of the chip.
4. The nanoscale standard sample according to claim 1, wherein the chip has one of its corners cut off.
5. The nanoscale standard sample according to claim 1, wherein the chip is rectangular in shape.
6. The nanoscale standard sample according to claim 2, wherein the chips are provided with different colors indicating the difference in pattern direction.
7. A method of manufacturing a nanoscale standard sample comprising the steps of forming an indicator on a portion of a chip having a diffraction grating pattern formed thereon, by a mechanical, chemical or electromagnetic-wave processing, the indicator permitting the visual determination of the direction of the diffraction

grating pattern, and attaching the chip on a sample base.

8. The method of manufacturing a nanoscale standard sample according to claim 7, wherein the mechanical processing is dicing, the chemical processing is chemical etching, and the electromagnetic-wave processing is laser marking, and wherein the indicator is a marking-off line, an etching mark, or laser marking.

9. The method of manufacturing a nanoscale standard sample according to claim 8, wherein the chip surface is coated with a protection film when providing the marking-off line or a mark by dicing or laser marking.

10. The method of manufacturing a nanoscale standard sample according to claim 8, wherein the chip having the diffraction grating pattern is affixed to the sample base by a vacuum adsorbing method prior to processing.

11. The method of manufacturing a nanoscale standard sample according to claim 7, wherein the chip is fixedly attached to the sample base by vacuum adsorption via a through-hole provided in the sample base.